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1. An optical disk data erasing apparatus which is an optical

said optical disk data erasing apparatus comprising:

an instruction recognition means for recognizing an instruction from the host computer; and

wherein said erasing means overwrites the optical disk which is judged as a write-once optical disk by the judgement means, by irradiating the optical disk with a laser beam having the same recording power as that at recording, thereby erasing data recorded on the optical disk.

said optical disk data erasing apparatus comprising:

~~a judgement means for making a judgement as to whether a loaded optical disk is a write-once optical disk or not;~~

an instruction recognition means for recognizing an instruction from the host computer; and

an erasing means for executing a data erasing process on the basis of the instruction;

wherein said erasing means overwrites the optical disk which is judged as a write-once optical disk by the judgement means, by irradiating the optical disk with a laser beam having a recording power higher than that at recording, thereby erasing data recorded on the optical disk.

3. An optical disk data erasing apparatus as defined in Claim 1 or 2, further comprising:

a disk recording information acquisition means for acquiring disk recording information relating to a data-recorded area or a data-unrecorded area of the write-once optical disk, on the basis of a disk recording information acquisition instruction which is issued by the host computer;

wherein said erasing means erases data recorded in the data-recorded area.

4. An optical disk data erasing apparatus as defined in Claim 3, further comprising:

a determination means for determining whether data are

FOI b7E b7C b7D b7F b7G b7H b7I b7J b7K b7L b7M b7N b7O b7P b7Q b7R b7S b7T b7U b7V b7W b7X b7Y b7Z b7AA b7AB b7AC b7AD b7AE b7AF b7AG b7AH b7AI b7AJ b7AK b7AL b7AM b7AN b7AO b7AP b7AQ b7AR b7AS b7AT b7AU b7AV b7AW b7AX b7AY b7AZ b7BA b7BB b7BC b7BD b7BE b7BF b7BG b7BH b7BI b7BJ b7BK b7BL b7BM b7BN b7BO b7BP b7BQ b7BR b7BS b7BT b7BU b7BV b7BW b7BX b7BY b7BZ b7CA b7CB b7CC b7CD b7CE b7CF b7CG b7CH b7CI b7CJ b7CK b7CL b7CM b7CN b7CO b7CP b7CQ b7CR b7CS b7CT b7CU b7CV b7CW b7CX b7CY b7CZ b7DA b7DB b7DC b7DD b7DE b7DF b7DG b7DH b7DI b7DJ b7DK b7DL b7DM b7DN b7DO b7DP b7DQ b7DR b7DS b7DT b7DU b7DV b7DW b7DX b7DY b7DZ b7EA b7EB b7EC b7ED b7EE b7EF b7EG b7EH b7EI b7EJ b7EK b7EL b7EM b7EN b7EO b7EP b7EQ b7ER b7ES b7ET b7EU b7EV b7EW b7EX b7EY b7EZ b7FA b7FB b7FC b7FD b7FE b7FF b7FG b7FH b7FI b7FJ b7FK b7FL b7FM b7FN b7FO b7FP b7FQ b7FR b7FS b7FT b7FU b7FV b7FW b7FX b7FY b7FZ b7GA b7GB b7GC b7GD b7GE b7GF b7GG b7GH b7GI b7GJ b7GK b7GL b7GM b7GN b7GO b7GP b7GQ b7GR b7GS b7GT b7GU b7GV b7GW b7GX b7GY b7GZ b7HA b7HB b7HC b7HD b7HE b7HF b7HG b7HH b7HI b7HJ b7HK b7HL b7HM b7HN b7HO b7HP b7HQ b7HR b7HS b7HT b7HU b7HV b7HW b7HX b7HY b7HZ b7IA b7IB b7IC b7ID b7IE b7IF b7IG b7IH b7II b7IJ b7IK b7IL b7IM b7IN b7IO b7IP b7IQ b7IR b7IS b7IT b7IU b7IV b7IW b7IX b7IY b7IZ b7JA b7JB b7JC b7JD b7JE b7JF b7JG b7JH b7JI b7JJ b7JK b7JL b7JM b7JN b7JO b7JP b7JQ b7JR b7JS b7JT b7JU b7JV b7JW b7JX b7JY b7JZ b7KA b7KB b7KC b7KD b7KE b7KF b7KG b7KH b7KI b7KJ b7KK b7KL b7KM b7KN b7KO b7KP b7KQ b7KR b7KS b7KT b7KU b7KV b7KW b7KX b7KY b7KZ b7LA b7LB b7LC b7LD b7LE b7LF b7LG b7LH b7LI b7LJ b7LK b7LL b7LM b7LN b7LO b7LP b7LQ b7LR b7LS b7LT b7LU b7LV b7LW b7LX b7LY b7LZ b7MA b7MB b7MC b7MD b7ME b7MF b7MG b7MH b7MI b7MJ b7MK b7ML b7MN b7MO b7MP b7MQ b7MR b7MS b7MT b7MU b7MV b7MW b7MX b7MY b7MZ b7NA b7NB b7NC b7ND b7NE b7NF b7NG b7NH b7NI b7NJ b7NK b7NL b7NM b7NO b7NP b7NQ b7NR b7NS b7NT b7NU b7NV b7NW b7NX b7NY b7NZ b7OA b7OB b7OC b7OD b7OE b7OF b7OG b7OH b7OI b7OJ b7OK b7OL b7OM b7ON b7OO b7OP b7OQ b7OR b7OS b7OT b7OU b7OV b7OW b7OX b7OY b7OZ b7PA b7PB b7PC b7PD b7PE b7PF b7PG b7PH b7PI b7PJ b7PK b7PL b7PM b7PN b7PO b7PP b7PQ b7PR b7PS b7PT b7PU b7PV b7PW b7PX b7PY b7PZ b7QA b7QB b7QC b7QD b7QE b7QF b7QG b7QH b7QI b7QJ b7QK b7QL b7QM b7QN b7QO b7QP b7QQ b7QR b7QS b7QT b7QU b7QV b7QW b7QX b7QY b7QZ b7RA b7RB b7RC b7RD b7RE b7RF b7RG b7RH b7RI b7RJ b7RK b7RL b7RM b7RN b7RO b7RP b7RQ b7RR b7RS b7RT b7RU b7RV b7RW b7RX b7RY b7RZ b7SA b7SB b7SC b7SD b7SE b7SF b7SG b7SH b7SI b7SJ b7SK b7SL b7SM b7SN b7SO b7SP b7SQ b7SR b7SS b7ST b7SU b7SV b7SW b7SX b7SY b7SZ b7TA b7TB b7TC b7TD b7TE b7TF b7TG b7TH b7TI b7TJ b7TK b7TL b7TM b7TN b7TO b7TP b7TQ b7TR b7TS b7TT b7TU b7TV b7TW b7TX b7TY b7TZ b7UA b7UB b7UC b7UD b7UE b7UF b7UG b7UH b7UI b7UJ b7UK b7UL b7UM b7UN b7UO b7UP b7UQ b7UR b7US b7UT b7UU b7UV b7UW b7UX b7UY b7UZ b7VA b7VB b7VC b7VD b7VE b7VF b7VG b7VH b7VI b7VJ b7VK b7VL b7VM b7VN b7VO b7VP b7VQ b7VR b7VS b7VT b7VU b7VV b7VW b7VX b7VY b7VZ b7WA b7WB b7WC b7WD b7WE b7WF b7WG b7WH b7WI b7WJ b7WK b7WL b7WM b7WN b7WO b7WP b7WQ b7WR b7WS b7WT b7WU b7WV b7WW b7WX b7WY b7WZ b7XA b7XB b7XC b7XD b7XE b7XF b7XG b7XH b7XI b7XJ b7XK b7XL b7XM b7XN b7XO b7XP b7XQ b7XR b7XS b7XT b7XU b7XV b7XW b7XZ b7YA b7YB b7YC b7YD b7YE b7YF b7YG b7YH b7YI b7YJ b7YK b7YL b7YM b7YN b7YO b7YP b7YQ b7YR b7YS b7YT b7YU b7YV b7YW b7YX b7YY b7YZ b7ZA b7ZB b7ZC b7ZD b7ZE b7ZF b7ZG b7ZH b7ZI b7ZJ b7ZK b7ZL b7ZM b7ZN b7ZO b7ZP b7ZQ b7ZR b7ZS b7ZT b7ZU b7ZV b7ZW b7ZX b7ZY b7ZZ b7AA b7AB b7AC b7AD b7AE b7AF b7AG b7AH b7AI b7AJ b7AK b7AL b7AM b7AN b7AO b7AP b7AQ b7AR b7AS b7AT b7AU b7AV b7AW b7AX b7AY b7AZ b7BA b7BB b7BC b7BD b7BE b7BF b7BG b7BH b7BI b7BJ b7BK b7BL b7BM b7BN b7BO b7BP b7BQ b7BR b7BS b7BT b7BU b7BV b7BW b7BX b7BY b7BZ b7CA b7CB b7CC b7CD b7CE b7CF b7CG b7CH b7CI b7CJ b7CK b7CL b7CM b7CN b7CO b7CP b7CQ b7CR b7CS b7CT b7CU b7CV b7CW b7CX b7CY b7CZ b7DA b7DB b7DC b7DD b7DE b7DF b7DG b7DH b7DI b7DJ b7DK b7DL b7DM b7DN b7DO b7DP b7DQ b7DR b7DS b7DT b7DU b7DV b7DW b7DX b7DY b7DZ b7EA b7EB b7EC b7ED b7EE b7EF b7EG b7EH b7EI b7EJ b7EK b7EL b7EM b7EN b7EO b7EP b7EQ b7ER b7ES b7ET b7EU b7EV b7EW b7EX b7EY b7EZ b7FA b7FB b7FC b7FD b7FE b7FF b7FG b7FH b7FI b7FJ b7FK b7FL b7FM b7FN b7FO b7FP b7FQ b7FR b7FS b7FT b7FU b7FV b7FW b7FX b7FY b7FZ b7GA b7GB b7GC b7GD b7GE b7GF b7GG b7GH b7GI b7GJ b7GK b7GL b7GM b7GN b7GO b7GP b7GQ b7GR b7GS b7GT b7GU b7GV b7GW b7GX b7GY b7GZ b7HA b7HB b7HC b7HD b7HE b7HF b7HG b7HH b7HI b7HJ b7HK b7HL b7HM b7HN b7HO b7HP b7HQ b7HR b7HS b7HT b7HU b7HV b7HW b7HX b7HY b7HZ b7IA b7IB b7IC b7ID b7IE b7IF b7IG b7IH b7II b7IJ b7IK b7IL b7IM b7IN b7IO b7IP b7IQ b7IR b7IS b7IT b7IU b7IV b7IW b7IX b7IY b7IZ b7JA b7JB b7JC b7JD b7JE b7JF b7JG b7JH b7JI b7JJ b7JK b7JL b7JM b7JN b7JO b7JP b7JQ b7JR b7JS b7JT b7JU b7JV b7JW b7JX b7JY b7JZ b7KA b7KB b7KC b7KD b7KE b7KF b7KG b7KH b7KI b7KJ b7KK b7KL b7KM b7KN b7KO b7KP b7KQ b7KR b7KS b7KT b7KU b7KV b7KW b7KX b7KY b7KZ b7LA b7LB b7LC b7LD b7LE b7LF b7LG b7LH b7LI b7LJ b7LK b7LL b7LM b7LN b7LO b7LP b7LQ b7LR b7LS b7LT b7LU b7LV b7LW b7LX b7LY b7LZ b7MA b7MB b7MC b7MD b7ME b7MF b7MG b7MH b7MI b7MJ b7MK b7ML b7MN b7MO b7MP b7MQ b7MR b7MS b7MT b7MU b7MV b7MW b7MX b7MY b7MZ b7NA b7NB b7NC b7ND b7NE b7NF b7NG b7NH b7NI b7NJ b7NK b7NL b7NM b7NO b7NP b7NQ b7NR b7NS b7NT b7NU b7NV b7NW b7NX b7NY b7NZ b7OA b7OB b7OC b7OD b7OE b7OF b7OG b7OH b7OI b7OJ b7OK b7OL b7OM b7ON b7OO b7OP b7OQ b7OR b7OS b7OT b7OU b7OV b7OW b7OX b7OY b7OZ b7PA b7PB b7PC b7PD b7PE b7PF b7PG b7PH b7PI b7PJ b7PK b7PL b7PM b7PN b7PO b7PP b7PQ b7PR b7PS b7PT b7PU b7PV b7PW b7PX b7PY b7PZ b7QA b7QB b7QC b7QD b7QE b7QF b7QG b7QH b7QI b7QJ b7QK b7QL b7QM b7QN b7QO b7QP b7QQ b7QR b7QS b7QT b7QU b7QV b7QW b7QX b7QY b7QZ b7RA b7RB b7RC b7RD b7RE b7RF b7RG b7RH b7RI b7RJ b7RK b7RL b7RM b7RN b7RO b7RP b7RQ b7RR b7RS b7RT b7RU b7RV b7RW b7RX b7RY b7RZ b7SA b7SB b7SC b7SD b7SE b7SF b7SG b7SH b7SI b7SJ b7SK b7SL b7SM b7SN b7SO b7SP b7SQ b7SR b7SS b7ST b7SU b7SV b7SW b7SX b7SY b7SZ b7TA b7TB b7TC b7TD b7TE b7TF b7TG b7TH b7TI b7TJ b7TK b7TL b7TM b7TN b7TO b7TP b7TQ b7TR b7TS b7TT b7TU b7TV b7TW b7TX b7TY b7TZ b7UA b7UB b7UC b7UD b7UE b7UF b7UG b7UH b7UI b7UJ b7UK b7UL b7UM b7UN b7UO b7UP b7UQ b7UR b7US b7UT b7UU b7UV b7UW b7UX b7UY b7UZ b7VA b7VB b7VC b7VD b7VE b7VF b7VG b7VH b7VI b7VJ b7VK b7VL b7VM b7VN b7VO b7VP b7VQ b7VR b7VS b7VT b7VU b7VV b7VW b7VX b7VY b7VZ b7WA b7WB b7WC b7WD b7WE b7WF b7WG b7WH b7WI b7WJ b7WK b7WL b7WM b7WN b7WO b7WP b7WQ b7WR b7WS b7WT b7WU b7WV b7WW b7WX b7WY b7WZ b7XA b7XB b7XC b7XD b7XE b7XF b7XG b7XH b7XI b7XJ b7XK b7XL b7XM b7XN b7XO b7XP b7XQ b7XR b7XS b7XT b7XU b7XV b7XW b7XZ b7YA b7YB b7YC b7YD b7YE b7YF b7YG b7YH b7YI b7YJ b7YK b7YL b7YM b7YN b7YO b7YP b7YQ b7YR b7YS b7YT b7YU b7YV b7YW b7YX b7YY b7YZ b7ZA b7ZB b7ZC b7ZD b7ZE b7ZF b7ZG b7ZH b7ZI b7ZJ b7ZK b7ZL b7ZM b7ZN b7ZO b7ZP b7ZQ b7ZR b7ZS b7ZT b7ZU b7ZV b7ZW b7ZX b7ZY b7ZZ

recorded on the write-once optical disk or not, on the basis of the disk recording information which is obtained by the disk recording information acquisition means;

wherein, when data are recorded on the write-once optical disk, said erasing means executes the recorded-data erasing process; and

when no data are recorded on the optical disk, said determination means returns an error signal to the host computer to notify the user that the data erasing process is not to be executed.

5. An optical disk data erasing apparatus as defined in Claim 3 further comprising:

a notification means for notifying the user of the disk recording information which is obtained by the disk recording information acquisition means, through the host computer; and

an erasing area detection means for detecting, when an instruction which specifies a data erasing area is issued from the user through the host computer on the basis of the disk recording information, an area corresponding to the specified data erasing area on the basis of the instruction;

wherein said erasing means erases the data recorded in the erasing area which is detected by the erasing area detection means.

6. An optical disk data erasing apparatus as defined in Claim 1 or 2 further comprising:

a setting means with which the user sets, through the host computer, whether the interface bus is to be occupied or not during execution of the data erasing process; and

a monitor means for monitoring the data erasing state on the basis of a state monitoring instruction which is periodically issued from the host computer, when it is set that the interface bus is not to be occupied;

wherein said host computer is able to execute another process during execution of the data erasing process, when it is set that the interface bus is not to be occupied.

7. An optical disk data erasing apparatus which is an optical disk recording apparatus for writing or reading data in/from a recordable optical disk by irradiating the optical disk with a laser beam,

said optical disk data erasing apparatus comprising:

a first jumper switch setting means for setting ON/OFF of a first jumper switch;

a setting identification means for identifying the setting of the first jumper switch;

a judgement means for making a judgement as to whether a loaded optical disk is a write-once optical disk or not;

an erasing means for overwriting the write-once optical disk

by irradiating the optical disk with a laser beam having the same recording power as that at recording, according to the setting of the first jumper switch, thereby erasing data recorded on the optical disk; and

an ejection means for automatically ejecting the optical disk after the data erasing process;

wherein, when the first jumper switch is turned ON, said erasing means starts the data erasing operation; and

when the first jumper switch is OFF or when the judgement means judges that the loaded optical disk is not a write-once optical disk, said ejection means automatically ejects the optical disk, and a display means displays that the data erasing process is not to be executed on the optical disk.

8. An optical disk data erasing apparatus which is an optical disk recording apparatus for writing or reading data in/from a recordable optical disk by irradiating the optical disk with a laser beam,

said optical disk data erasing apparatus comprising:

a first jumper switch setting means for setting ON/OFF of a first jumper switch;

a setting identification means for identifying the setting of the first jumper switch;

a judgement means for making a judgement as to whether a loaded optical disk is a write-once optical disk or not;

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an erasing means for ~~overwriting the write-once optical disk~~
 by irradiating the optical disk with a laser beam having a
 recording power higher than that at recording, according to the
 setting of the first jumper switch, thereby erasing the data
 recorded on the optical disk; and

an ejection means for automatically ejecting the optical disk
 after the data erasing process;

wherein, when the first jumper switch is turned ON, said
 erasing means starts the data erasing operation; and

when the first jumper switch is OFF or when the judgement
 means judges that the loaded optical disk is not a write-once
 optical disk, said ejection means automatically ejects the
 optical disk, and display means displays that the data erasing
 process is not to be executed on the optical disk.

9. An optical disk data erasing apparatus as defined in Claim 7
 or 8 further comprising:

a checking means for checking whether the data erasing
 process has normally ended or not;

wherein, when the data erasing process for the write-once
 optical disk has not normally ended, said ejection means
 automatically ejects the optical disk, and said display means
 displays that the data erasing process is not to be executed on
 the optical disk.

10. An optical disk data erasing apparatus as defined in Claim 9 further comprising:

a second jumper switch setting means for setting ON/OFF of a second jumper switch;

wherein said setting identification means identifies the setting of the second jumper switch;

when it is identified that the second jumper switch is ON, said erasing means executes the data erasing process over the entire surface of the optical disk; and

when it is identified that the second jumper switch is OFF, said erasing means executes the data erasing process on a final session.

11. An optical disk data erasing apparatus as defined in Claim 7 or 8 further comprising:

a disk recording information acquisition means for acquiring information relating to a data-recorded area or a data-unrecorded area of the write-once optical disk;

wherein said erasing means erases recorded data from the data-recorded area.

12. An optical disk data erasing apparatus as defined in Claim 11 further comprising:

a determination means for determining whether data are recorded on the write-once optical disk or not, on the basis of

~~from a host computer; and~~

an erasing step of overwriting the optical disk which is judged as a write-once optical disk in the judgement step, by irradiating the optical disk with a laser beam having a recording power higher than that at recording, on the basis of the instruction, thereby erasing data recorded on the optical disk.

15. An optical disk data erasing method as defined in Claim 13 or 14 further comprising:

a disk recording information acquisition instruction step of issuing a disk recording information acquisition instruction from the host computer; and

a disk recording information acquisition step of acquiring information relating to a data-recorded area or a data-unrecorded area of the write-once optical disk, on the basis of the disk recording information acquisition instruction;

wherein data recorded in the data-recorded area are erased in the erasing step.

16. An optical disk data erasing method as defined in Claim 15, further comprising:

a determination step of determining whether data are recorded on the write-once optical disk or not, on the basis of the disk recording information which is obtained in the disk recording information acquisition step;

when no data are recorded on the optical disk, an error signal is returned to the host computer in the determination step to notify the user that the data erasing process is not to be executed on the optical disk.

a notification step of notifying the user of the disk recording information which is obtained in the disk recording information acquisition step, through the host computer;

an erasing area detection step of detecting, from the data-recorded area obtained in the disk recording information acquisition step, an area corresponding to the specified erasing area on the basis of the instruction;

18. An optical disk data erasing method as defined in Claim 13

or 14 further comprising:

a setting step in which the user sets, through the host computer, whether an interface bus is to be occupied or not during execution of the data erasing process;

a monitoring instruction step of periodically issuing an erasing state monitoring instruction from the host computer, when it is set that the interface bus is not to be occupied; and

a monitoring step of monitoring the data erasing state on the basis of the erasing state monitoring instruction.

19. An optical disk data erasing method comprising:

a first jumper switch setting step of setting ON/OFF of a first jumper switch;

a setting identification step of identifying the setting of the first jumper switch;

a judgement step of making a judgement as to whether a loaded optical disk is a write-once optical disk or not;

an erasing step of overwriting the write-once optical disk by irradiating the optical disk with a laser beam having the same recording power as that at recording, according to the setting of the first jumper switch, thereby erasing data recorded on the optical disk; and

an ejection step of automatically ejecting the optical disk after the data erasing process;

wherein, when the first jumper switch is ON, the erasing step

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when the first jumper switch is OFF or when it is judged in the judgement step that the loaded optical disk is not a write-once optical disk, the optical disk is automatically ejected in the ejection step, and it is displayed, in a display step, that the data erasing process is not to be executed on the optical disk.

a first jumper switch setting step of setting ON/OFF of a first jumper switch;

a setting identification step of identifying the setting of the first jumper switch;

a judgement step of making a judgement as to whether a loaded optical disk is a write-once optical disk or not;

an erasing step of overwriting the write-once optical disk by irradiating the optical disk with a laser beam having a recording power higher than that at recording, according to the setting of the first jumper switch, thereby erasing data recorded on the optical disk; and

an ejection step of automatically ejecting the optical disk after the data erasing process;

wherein, when the first jumper switch is ON, said erasing step starts the erasing operation; and

when the first jumper switch is OFF or when it is judged in

the judgement step that the loaded optical disk is not a write-once optical disk, the optical disk is automatically ejected in the ejection step, and it is displayed, in a display step, that the data erasing process is not to be executed on the optical disk.

21. An optical disk data erasing method as defined in Claim 19 or 20 further comprising:

a checking step of checking whether the data erasing process has ended normally or not;

wherein, when the data erasing process for the write-once optical disk has not ended normally, the optical disk is automatically ejected in the ejection step, and it is displayed, in the display step, that the data erasing process is not to be executed on the optical disk.

22. An optical disk data erasing method as defined in Claim 21 further comprising:

a second jumper switch setting step of setting ON/OFF of a second jumper switch;

wherein the setting of the second jumper switch is identified in the setting identification step;

when it is identified that the second jumper switch is ON, the data erasing process is executed over the entire surface of the optical disk in the erasing step; and

23. An optical disk data erasing method as defined in Claim 19 or 20 further comprising:

wherein data recorded in the data-recorded area are erased in the erasing step.

a determination step of determining whether data are recorded on the write-once optical disk or not, on the basis of the disk recording information obtained in the disk recording information acquisition step;

when no data are recorded on the write-once optical disk, the optical disk is automatically ejected in the ejection step, and it is displayed, in the display step, that the data erasing process is not to be executed on the optical disk.